

January 28, 2010

Service Request No: E1000009

Ms. Lisa Graczyk/Dynamac  
Weston Solutions, Inc.  
20 North Wacker Drive, Suite 1210  
Chicago, IL 60606

**Laboratory Results for: Sauget E. St. Louis/20405.016.008.0828.00**

Dear Ms. Graczyk/Dynamac:

Enclosed are the results of the sample(s) submitted to our laboratory on November 10, 2009. For your reference, these analyses have been assigned our service request number **E1000009**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided.

All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the final complete report. Results apply only to the items

submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2957. You may also contact me via email at [JFreemyer@caslab.com](mailto:JFreemyer@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

Jane Freemyer  
Project Manager; GC/HRMS

Page 1 of \_\_\_\_\_

*For a specific list of NELAP-accredited analytes, refer to the certifications section at  
[www.caslab.com](http://www.caslab.com).*



## *Certificate of Analysis*

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## COLUMBIA ANALYTICAL SERVICES, INC

**Client:** Weston Solutions, Inc      **Service Request No.:** E1000009  
**Project:** Sauget E. St. Louis/20405.016.008.0828.00      **Date Received:** 11/10/09  
**Sample Matrix:** Soil

### CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

#### Sample Receipt

Thirteen soil samples were received for analysis at Columbia Analytical Services on 11/10/09.

The samples were received at 2C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a freezer at -21C upon receipt at the laboratory.

#### Data Validation Notes and Discussion

##### B flags – Method Blanks

The Method Blank EQ1000008-01/U221939 contained PCB-77, PCB-118, PCB-105, PCB-167 and PCB-156+157 below the Method Reporting Limit (MRL).

The associated compounds in the samples are flagged with 'B' flags.

##### Y flags – Labeled Standards

Samples that had recoveries of labeled standards outside the acceptance limits are flagged with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1, making these data acceptable.

##### MS/DMS

EQ1000008: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of an MS/DMS for this extraction batch.

##### MRL

Samples SE-SS-04-110409, SE-SS-14-110509, SE-SS-15-110509, SE-SS-31-110609 and SE-SS-32-110609 required dilutions due to the presence of elevated levels of target analytes. The undiluted and diluted results were combined into one Total TEQ summary report for each sample. This reports a 'Total' result that includes the most appropriate concentration found for the associated target analyte.

Approved by \_\_\_\_\_ Date 01/29/10

Xiangqiu Liang, Laboratory Director

For dilutions, we adjust the concentration of the labeled compounds to 100pg/uL in the extract, as required in Section 17.5 of Method 1668A. The clean-up standard concentration is not adjusted with the labeled standards, as the clean-up standard measures the extraction recoveries in the 1:1 extract. Please disregard the recoveries for the clean-up standard in the dilutions.

### **K flags**

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

### **Detection Limits**

Detection limits are calculated for each congener in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

### **The TEQ Summary results for each sample have been calculated by CAS/Houston to include:**

- [The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds](#) (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'
- The 1:1 and associated dilution have been combined into one TEQ Summary report

Approved by \_\_\_\_\_ Date 01/29/10

Xiangqiu Liang, Laboratory Director

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- [The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds](#) (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'
- The 1:1 and associated dilution have been combined into one TEQ Summary report

Approved by \_\_\_\_\_ Date 01/29/10

Xiangqiu Liang, Laboratory Director

**Client:** Weston Solutions, Inc.  
**Project:** Sauget E. St. Louis/20405.016.008.0828.00

**Service Request:** E1000009

**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-----------------|-------------------------|-------------|-------------|
| E1000009-001    | SE-SS-04-110409         | 11/4/09     | 11:26       |
| E1000009-002    | SE-SS-12-110409         | 11/4/09     | 17:15       |
| E1000009-003    | SE-SS-14-110509         | 11/5/09     | 09:17       |
| E1000009-004    | SE-SS-15-110509         | 11/5/09     | 09:58       |
| E1000009-005    | SE-SS-17-110509         | 11/5/09     | 12:10       |
| E1000009-006    | SE-SS-19-110509         | 11/5/09     | 14:40       |
| E1000009-007    | SE-SS-20-110509         | 11/5/09     | 15:10       |
| E1000009-008    | SE-SS-21-110509         | 11/5/09     | 15:40       |
| E1000009-009    | SE-SS-23-110509         | 11/5/09     | 16:50       |
| E1000009-010    | SE-SS-23-110509-D       | 11/5/09     | 16:50       |
| E1000009-011    | SE-SS-25-110609         | 11/6/09     | 09:09       |
| E1000009-012    | SE-SS-31-110609         | 11/6/09     | 13:08       |
| E1000009-013    | SE-SS-32-110609         | 11/6/09     | 13:35       |

# Superset Summary

Service Request: E1000009

SuperSet Reference: 10-0000133273 rev 00

## 1668A/Cl Biphen Cong

Calibrations: 10/19/09

**Data Files:**

| <i>Raw Data</i> | <i>Begin CCAL</i> | <i>Method Blank</i> | <i>Lab ID</i>    |
|-----------------|-------------------|---------------------|------------------|
| U221933         | U221926           | U221939             | E1000009-001.R01 |
| U221934         | U221926           | U221939             | E1000009-002     |
| U221935         | U221926           | U221939             | E1000009-003.R01 |
| U221936         | U221926           | U221939             | E1000009-004.R01 |
| U221939         | U221938           | U221939             | EQ1000008-01     |
| U221940         | U221938           | U221939             | E1000009-005     |
| U221941         | U221938           | U221939             | E1000009-006     |
| U221942         | U221938           | U221939             | E1000009-007     |
| U221943         | U221938           | U221939             | E1000009-008     |
| U221947         | U221944           | U221939             | E1000009-009     |
| U221948         | U221944           | U221939             | E1000009-010     |
| U221949         | U221944           | U221939             | E1000009-011     |
| U221950         | U221944           | U221939             | E1000009-012.R01 |
| U221951         | U221944           | U221939             | E1000009-013.R01 |
| U221952         | U221944           | U221939             | EQ1000008-02     |
| U221953         | U221944           | U221939             | EQ1000008-03     |
| U222001         | U221996           | U221939             | E1000009-001     |
| U222002         | U221996           | U221939             | E1000009-003     |
| U222007         | U222003           | U221939             | E1000009-004     |
| U222008         | U222003           | U221939             | E1000009-012     |
| U222009         | U222003           | U221939             | E1000009-013     |

## CAS SOP/Total Solids

Calibrations:

**Data Files:**

| <i>Raw Data</i> | <i>Begin CCAL</i> | <i>Method Blank</i> | <i>Lab ID</i> |
|-----------------|-------------------|---------------------|---------------|
|                 |                   |                     |               |

# Laboratory Certifications

## 2009-2010

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| STATE/PROGRAM      | AGENCY     | CERTIFICATION ID | EXP DATE |
|--------------------|------------|------------------|----------|
| ARIZONA            | AZ-DHS     | AZ0725           | 05/26/10 |
| ARKANSAS           | ADEQ       | 09-048-0         | 06/16/10 |
| CALIFORNIA         | CA-ELAP    | 2452             | 02/28/11 |
| FLORIDA/NELAP      | FL-DOHS    | E87611           | 06/30/10 |
| HAWAII             | HI-DOH     | N/A              | 06/30/10 |
| ILLINOIS/NELAP     | IL-EPA     | 002380           | 10/06/10 |
| LOUISIANA/NELAP    | LELAP      | 03048            | 06/30/10 |
| MAINE              | ME-DOHS    | 2008031          | 06/05/10 |
| MICHIGAN           | MIDEQ      | 9971             | 06/30/10 |
| MINNESOTA          | MDH        | 048-999-427      | 03/25/10 |
| NEVADA             | NDEP       | TX014112009A     | 07/31/10 |
| NEW JERSEY         | NJDEP      | TX008            | 06/30/10 |
| NEW MEXICO         | NMED-DWB   | N/A              | 06/30/10 |
| NEW YORK/NELAP     | NY-DOH     | 11707            | 03/31/10 |
| NFESC/NAVY         | NFESC      | N/A              | 01/09/10 |
| OKLAHOMA           | OKDEQ      | 2009-25          | 08/31/10 |
| OREGON/NELAP       | ORELAP     | TX200002-006     | 03/24/10 |
| TENNESSEE          | TNDEC      | 04016            | 06/30/10 |
| TEXAS/NELAP        | TCEQ       | T104704216-09-TX | 06/30/10 |
| UTAH/NELAP         | UTECP      | COLU2            | 06/30/10 |
| SOIL IMPORT PERMIT | USDA       | P330-09-00067    | 03/27/12 |
| WASHINGTON/NELAP   | WA-Ecology | C1855            | 11/14/10 |
| WEST VIRGINIA      | WVDEP      | 347              | 06/30/10 |

# Abbreviations, Acronyms & Definitions

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|                  |                                                          |
|------------------|----------------------------------------------------------|
| <b>Cal</b>       | Calibration                                              |
| <b>Conc</b>      | CONCentratiOn                                            |
| <b>Dioxin(s)</b> | Polychlorinated dibenzo-p-dioxin(s)                      |
| <b>EDL</b>       | Estimated Detection Limit                                |
| <b>EMPC</b>      | Estimated Maximum Possible Concentration                 |
| <b>Flags</b>     | Data qualifiers                                          |
| <b>Furan(s)</b>  | Polychlorinated dibenzofuran(s)                          |
| <b>g</b>         | Grams                                                    |
| <b>ICAL</b>      | Initial CALibration                                      |
| <b>ID</b>        | IDentifier                                               |
| <b>Ions</b>      | Masses monitored for the analyte during data acquisition |
| <b>L</b>         | Liter (s)                                                |
| <b>LCS</b>       | Laboratory Control Sample                                |
| <b>DLCS</b>      | Duplicate Laboratory Control Sample                      |
| <b>MB</b>        | Method Blank                                             |
| <b>MCL</b>       | Method Calibration Limit                                 |
| <b>MDL</b>       | Method Detection Limit                                   |
| <b>MRL</b>       | Method Reporting Limit                                   |
| <b>mL</b>        | Milliliters                                              |
| <b>MS</b>        | Matrix Spiked sample                                     |
| <b>DMS</b>       | Duplicate Matrix Spiked sample                           |
| <b>NO</b>        | Number of peaks meeting all identification criteria      |
| <b>PCDD(s)</b>   | Polychlorinated dibenzo-p-dioxin(s)                      |
| <b>PCDF(s)</b>   | Polychlorinated dibenzofuran(s)                          |
| <b>ppb</b>       | Parts per billion                                        |
| <b>ppm</b>       | Parts per million                                        |
| <b>ppq</b>       | Parts per quadrillion                                    |
| <b>ppt</b>       | Parts per trillion                                       |
| <b>QA</b>        | Quality Assurance                                        |
| <b>QC</b>        | Quality Control                                          |
| <b>Ratio</b>     | Ratio of areas from monitored ions for an analyte        |
| <b>% Rec.</b>    | Percent Recovery                                         |
| <b>RPD</b>       | Relative Percent Difference                              |
| <b>RRF</b>       | Relative Response Factor                                 |
| <b>RT</b>        | Retention Time                                           |
| <b>RRT</b>       | Relative Retention Time                                  |
| <b>SDG</b>       | Sample Delivery Group                                    |
| <b>S/N</b>       | Signal-to-Noise ratio                                    |
| <b>TEF</b>       | Toxicity Equivalence Factor                              |
| <b>TEQ</b>       | Toxicity Equivalence Quotient                            |

## Data Qualifier Flags – Dioxin/Furans

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- **B** Indicates the associated analyte is found in the method blank, as well as in the sample.
- **C** Confirmation of the TCDF compound: When 2378-TCDF is detected on the DB-5 column, confirmation analyses are performed on a second column (DB-225). The results from both the DB-5 column and the DB-225 column are included in this data package. The results from the DB-225 analyses should be used to evaluate the 2378-TCDF in the samples. The confirmed result should be used in determining the TEQ value for TCDF.
- **E** Indicates an estimated value – used when the analyte concentration exceeds the upper end of the linear calibration range.
- **J** Indicates an estimated value – used when the analyte concentration is below the method reporting limit (MRL) and above the estimated detection limit (EDL).
- **K** EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.
- **U** Indicates the compound was analyzed and not detected.
- **Y** Samples that had recoveries of labeled standards outside the acceptance limits are flagged with 'Y'. In all cases, the signal-to-noise ratios are greater than 10:1, making these data acceptable.
- **ND** Indicates concentration is reported as 'Not Detected.'
- **S** Peak is saturated; data not reportable.
- **P** Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
- **Q** Lock-mass interference by chlorodiphenyl ether compounds.

# CAS/HOU - Form Production, Peer Review & Project Review Signatures

SR# Unique ID

E100009

## First Level - Data Processing - to be filled by person generating the forms

|      |          |          |              |
|------|----------|----------|--------------|
| Date | 01/20/10 | Person 1 | MC (009-013) |
| Date |          | Person 2 |              |

## Second Level - Data Review – to be filled by person doing peer review

|      |          |                         |                                                                                   |
|------|----------|-------------------------|-----------------------------------------------------------------------------------|
| Date | 01/21/10 | Primary Data Reviewer   |  |
| Date |          | Secondary Data Reviewer |                                                                                   |

## Project Level - Review – to be filled by person doing project compliance review

|      |          |
|------|----------|
| Date | Reviewer |
|------|----------|

# CAS/HOU - Form Production, Peer Review & Project Review Signatures

SR# Unique ID

E100009

## First Level - Data Processing - to be filled by person generating the forms

Date

01/20/10

Person 1

mc (001-004)

Date

Person 2

## Second Level - Data Review - to be filled by person doing peer review

Date

1/22/10

Primary Data Reviewer

gc (001-004)

Date

Secondary Data Reviewer

## Project Level - Review - to be filled by person doing project compliance review

Date

Reviewer

# CAS/HOU - Form Production, Peer Review & Project Review Signatures

SR# Unique ID

E1000009

## First Level - Data Processing - to be filled by person generating the forms

Date

01/21/10

Person 1

mc (605-008)

Date

Person 2

## Second Level - Data Review - to be filled by person doing peer review

Date

01/22/10

Primary Data Reviewer

SA

Date

Secondary Data Reviewer

## Project Level - Review - to be filled by person doing project compliance review

Date

Reviewer

# CAS/HOU - Form Production, Peer Review & Project Review Signatures

SR# Unique ID

E1000009

## First Level - Data Processing - to be filled by person generating the forms

|      |          |          |                 |
|------|----------|----------|-----------------|
| Date | 01/26/10 | Person 1 | MC(09IDL,003PL) |
| Date |          | Person 2 |                 |

## Second Level - Data Review – to be filled by person doing peer review

|      |          |                         |                 |
|------|----------|-------------------------|-----------------|
| Date | 11/28/10 | Primary Data Reviewer   | QC(09IDL,003dl) |
| Date |          | Secondary Data Reviewer |                 |

## Project Level - Review - to be filled by person doing project compliance review

|      |          |
|------|----------|
| Date | Reviewer |
|------|----------|

# CAS/HOU - Form Production, Peer Review & Project Review Signatures

SR# Unique ID

100009

## First Level - Data Processing - to be filled by person generating the forms

Date

01/27/10

Person 1

MC (004DL, 012DL, 013DL)

Date

Person 2

## Second Level - Data Review - to be filled by person doing peer review

Date

01/28/10

Primary Data Reviewer

SA

Date

Secondary Data Reviewer

## Project Level - Review - to be filled by person doing project compliance review

Date

Reviewer



## *Analytical Results*

19408 Park Row, Suite 320, Houston, TX 77084

Phone (713)266-1599 Fax (713)266-0130

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-04-110409  
**Lab Code:** E1000009-001  
**Service Request:** E1000009  
**Date Collected:** 11/4/09 1126  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 79.3

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.190g  
**Data File Name:** U221933  
**ICAL Date:** 10/19/09  
**Date Analyzed:** 1/15/10 0105  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Analyte Name   | Result Q   | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|------------|------|------|-----------|-------|-----------------|
| PCB 81         | 90.7 J     | 4.40 | 121  | 0.85      | 1.000 | 1               |
| PCB 77         | 1830 B     | 5.33 | 121  | 0.80      | 1.001 | 1               |
| PCB 123        | 5130       | 13.6 | 121  | 1.58      | 1.000 | 1               |
| PCB 118        | 102000 BEK | 12.7 | 121  | 1.16      | 1.000 | 1               |
| PCB 114        | 1890       | 13.3 | 121  | 1.55      | 1.000 | 1               |
| PCB 105        | 71100 BE   | 13.8 | 48.6 | 1.52      | 1.001 | 1               |
| PCB 126        | 355        | 14.8 | 121  | 1.58      | 1.001 | 1               |
| PCB 167        | 19900 BE   | 33.3 | 121  | 1.27      | 1.001 | 1               |
| PCBs 156 + 157 | 58400 BE   | 49.4 | 121  | 1.26      | 1.000 | 1               |
| PCB 169        | 185        | 40.1 | 121  | 1.33      | 0.999 | 1               |
| PCB 189        | 2420       | 46.8 | 121  | 1.00      | 1.000 | 1               |

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-04-110409  
**Lab Code:** E1000009-001

**Service Request:** E1000009  
**Date Collected:** 11/4/09 1126  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 79.3

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.190g  
**Data File Name:** U221933  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0105  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2107.980         | 105  |   | 25-150         | 0.79      | 1.327 |
| PCB 77L           | 2000            | 1835.353         | 92   |   | 25-150         | 0.80      | 1.347 |
| PCB 123L          | 2000            | 1639.003         | 82   |   | 25-150         | 1.61      | 1.135 |
| PCB 118L          | 2000            | 1892.036         | 95   |   | 25-150         | 1.54      | 1.145 |
| PCB 114L          | 2000            | 1620.668         | 81   |   | 25-150         | 1.54      | 1.160 |
| PCB 105L          | 2000            | 1728.564         | 86   |   | 25-150         | 1.57      | 1.179 |
| PCB 126L          | 2000            | 1762.214         | 88   |   | 25-150         | 1.57      | 1.268 |
| PCB 167L          | 2000            | 1346.964         | 67   |   | 25-150         | 1.25      | 1.070 |
| PCBs 156L + 157L  | 4000            | 2707.285         | 68   |   | 25-150         | 1.28      | 1.097 |
| PCB 169L          | 2000            | 1315.392         | 66   |   | 25-150         | 1.27      | 1.173 |
| PCB 189L          | 2000            | 1494.049         | 75   |   | 25-150         | 1.01      | 0.962 |
| PCB 111L          | 2000            | 1550.423         | 78   |   | 30-135         | 1.58      | 1.077 |
| PCB 178L          | 2000            | 1260.961         | 63   |   | 30-135         | 1.04      | 1.010 |

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-04-110409  
**Lab Code:** E1000009-001

**Service Request:** E1000009  
**Date Collected:** 11/4/09 1126  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 90.7   | 4.40 | 1               | 0.0003  | 0.0272                       |
| PCB 77         | 1830   | 5.33 | 1               | 0.0001  | 0.183                        |
| PCB 123        | 5130   | 13.6 | 1               | 0.00003 | 0.154                        |
| PCB 118        | 273000 | 195  | 30              | 0.00003 | 8.19                         |
| PCB 114        | 1890   | 13.3 | 1               | 0.00003 | 0.0567                       |
| PCB 105        | 99300  | 246  | 30              | 0.00003 | 2.98                         |
| PCB 126        | 355    | 14.8 | 1               | 0.1     | 35.5                         |
| PCB 167        | 33100  | 125  | 30              | 0.00003 | 0.993                        |
| PCBs 156 + 157 | 94300  | 180  | 30              | 0.00003 | 2.83                         |
| PCB 169        | 185    | 40.1 | 1               | 0.03    | 5.55                         |
| PCB 189        | 2420   | 46.8 | 1               | 0.00003 | 0.0726                       |
| Total TEQ      |        |      |                 |         | 56.5                         |

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-04-110409  
**Lab Code:** E1000009-001  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/4/09 1126  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 79.3

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.190g  
**Data File Name:** U222001  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 1411  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221996

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | ND U            | 49.1 | 3640 |           |       | 30              |
| PCB 77         | ND U            | 57.6 | 3640 |           |       | 30              |
| PCB 123        | ND U            | 247  | 3640 |           |       | 30              |
| PCB 118        | <b>273000</b> B | 195  | 3640 | 1.61      | 1.001 | 30              |
| PCB 114        | ND U            | 249  | 3640 |           |       | 30              |
| PCB 105        | <b>99300</b> B  | 246  | 1460 | 1.60      | 1.001 | 30              |
| PCB 126        | ND U            | 256  | 3640 |           |       | 30              |
| PCB 167        | <b>33100</b> B  | 125  | 3640 | 1.27      | 1.000 | 30              |
| PCBs 156 + 157 | <b>94300</b> B  | 180  | 3640 | 1.27      | 1.000 | 30              |
| PCB 169        | ND U            | 153  | 3640 |           |       | 30              |
| PCB 189        | ND U            | 119  | 3640 |           |       | 30              |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauget E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-04-110409  
**Lab Code:** E1000009-001  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/4/09 1126  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 79.3

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.190g  
**Data File Name:** U222001  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 1411  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221996

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 3039.521         | 152  |   | 25-150         | 0.78      | 1.327 |
| PCB 77L           | 2170            | 2939.519         | 135  |   | 25-150         | 0.81      | 1.348 |
| PCB 123L          | 2440            | 3098.252         | 127  |   | 25-150         | 1.61      | 1.136 |
| PCB 118L          | 2110            | 3236.091         | 154  | Y | 25-150         | 1.60      | 1.145 |
| PCB 114L          | 2470            | 3007.078         | 122  |   | 25-150         | 1.62      | 1.161 |
| PCB 105L          | 2330            | 3073.781         | 132  |   | 25-150         | 1.62      | 1.180 |
| PCB 126L          | 2270            | 3290.351         | 145  |   | 25-150         | 1.55      | 1.269 |
| PCB 167L          | 2990            | 2492.676         | 84   |   | 25-150         | 1.25      | 1.070 |
| PCBs 156L + 157L  | 5880            | 5212.104         | 89   |   | 25-150         | 1.27      | 1.098 |
| PCB 169L          | 3030            | 2534.990         | 84   |   | 25-150         | 1.27      | 1.174 |
| PCB 189L          | 2670            | 2315.649         | 87   |   | 25-150         | 1.05      | 0.962 |
| PCB 111L          | 2560            | 67.871           | 3    | Y | 30-135         | 1.68      | 1.078 |
| PCB 178L          | 3170            | 66.561           | 2    | Y | 30-135         | 1.04      | 1.011 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-12-110409  
**Lab Code:** E1000009-002  
**Service Request:** E1000009  
**Date Collected:** 11/4/09 1715  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 79.2

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.060g  
**Data File Name:** U221934  
**ICAL Date:** 10/19/09  
**Date Analyzed:** 1/15/10 0213  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Analyte Name   | Result Q | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|----------|------|------|-----------|-------|-----------------|
| PCB 81         | 119 J    | 2.09 | 125  | 0.86      | 1.000 | 1               |
| PCB 77         | 1510 B   | 2.28 | 125  | 0.79      | 1.001 | 1               |
| PCB 123        | 683      | 80.6 | 125  | 1.53      | 1.000 | 1               |
| PCB 118        | 22400 BE | 73.8 | 125  | 1.60      | 1.001 | 1               |
| PCB 114        | 826      | 80.3 | 125  | 1.55      | 1.001 | 1               |
| PCB 105        | 15100 BE | 83.4 | 49.9 | 1.61      | 1.000 | 1               |
| PCB 126        | 279      | 85.7 | 125  | 1.56      | 1.000 | 1               |
| PCB 167        | 2150 B   | 24.7 | 125  | 1.26      | 1.001 | 1               |
| PCBs 156 + 157 | 6800 B   | 35.7 | 125  | 1.25      | 1.000 | 1               |
| PCB 169        | 59.1 J   | 29.6 | 125  | 1.28      | 0.999 | 1               |
| PCB 189        | 627      | 12.7 | 125  | 1.02      | 1.000 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-12-110409  
**Lab Code:** E1000009-002

**Service Request:** E1000009  
**Date Collected:** 11/4/09 1715  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 79.2

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.060g  
**Data File Name:** U221934  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0213  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 963.680          | 48   |   | 25-150         | 0.79      | 1.327 |
| PCB 77L           | 2000            | 934.577          | 47   |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2000            | 854.029          | 43   |   | 25-150         | 1.58      | 1.135 |
| PCB 118L          | 2000            | 894.549          | 45   |   | 25-150         | 1.56      | 1.144 |
| PCB 114L          | 2000            | 841.285          | 42   |   | 25-150         | 1.59      | 1.160 |
| PCB 105L          | 2000            | 875.066          | 44   |   | 25-150         | 1.54      | 1.179 |
| PCB 126L          | 2000            | 930.565          | 47   |   | 25-150         | 1.56      | 1.268 |
| PCB 167L          | 2000            | 707.521          | 35   |   | 25-150         | 1.26      | 1.070 |
| PCBs 156L + 157L  | 4000            | 1447.821         | 36   |   | 25-150         | 1.25      | 1.098 |
| PCB 169L          | 2000            | 707.433          | 35   |   | 25-150         | 1.29      | 1.173 |
| PCB 189L          | 2000            | 729.506          | 36   |   | 25-150         | 1.02      | 0.962 |
| PCB 111L          | 2000            | 779.552          | 39   |   | 30-135         | 1.57      | 1.078 |
| PCB 178L          | 2000            | 652.808          | 33   |   | 30-135         | 1.03      | 1.010 |

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-12-110409  
**Lab Code:** E1000009-002

**Service Request:** E1000009  
**Date Collected:** 11/4/09 1715  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 119    | 2.09 | 1               | 0.0003  | 0.0357                       |
| PCB 77         | 1510   | 2.28 | 1               | 0.0001  | 0.151                        |
| PCB 123        | 683    | 80.6 | 1               | 0.00003 | 0.0205                       |
| PCB 118        | 22400  | 73.8 | 1               | 0.00003 | 0.672                        |
| PCB 114        | 826    | 80.3 | 1               | 0.00003 | 0.0248                       |
| PCB 105        | 15100  | 83.4 | 1               | 0.00003 | 0.453                        |
| PCB 126        | 279    | 85.7 | 1               | 0.1     | 27.9                         |
| PCB 167        | 2150   | 24.7 | 1               | 0.00003 | 0.0645                       |
| PCBs 156 + 157 | 6800   | 35.7 | 1               | 0.00003 | 0.204                        |
| PCB 169        | 59.1   | 29.6 | 1               | 0.03    | 1.77                         |
| PCB 189        | 627    | 12.7 | 1               | 0.00003 | 0.0188                       |
| Total TEQ      |        |      |                 |         | 31.3                         |

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-14-110509  
**Lab Code:** E1000009-003  
**Service Request:** E1000009  
**Date Collected:** 11/5/09 0917  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 77.8

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.237g  
**Data File Name:** U221935  
**ICAL Date:** 10/19/09  
**Date Analyzed:** 1/15/10 0321  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Analyte Name   | Result Q | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|----------|------|------|-----------|-------|-----------------|
| PCB 81         | 77.8 J   | 6.00 | 123  | 0.87      | 1.000 | 1               |
| PCB 77         | 1220 B   | 6.53 | 123  | 0.80      | 1.000 | 1               |
| PCB 123        | 1270     | 51.8 | 123  | 1.57      | 1.000 | 1               |
| PCB 118        | 63200 BE | 47.4 | 123  | 1.60      | 1.001 | 1               |
| PCB 114        | 1780     | 52.2 | 123  | 1.56      | 1.001 | 1               |
| PCB 105        | 30500 BE | 52.8 | 49.1 | 1.56      | 1.000 | 1               |
| PCB 126        | 102 J    | 58.1 | 123  | 1.65      | 1.001 | 1               |
| PCB 167        | 3540 B   | 37.1 | 123  | 1.26      | 1.000 | 1               |
| PCBs 156 + 157 | 11900 BE | 52.8 | 123  | 1.27      | 1.000 | 1               |
| PCB 169        | 53.6 J   | 44.9 | 123  | 1.30      | 0.999 | 1               |
| PCB 189        | 579      | 11.9 | 123  | 0.92      | 1.000 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-14-110509  
**Lab Code:** E1000009-003

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0917  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 77.8

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.237g  
**Data File Name:** U221935  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0321  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 1989.126         | 99   |   | 25-150         | 0.78      | 1.328 |
| PCB 77L           | 2000            | 1957.895         | 98   |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2000            | 1742.004         | 87   |   | 25-150         | 1.56      | 1.135 |
| PCB 118L          | 2000            | 1867.694         | 93   |   | 25-150         | 1.53      | 1.144 |
| PCB 114L          | 2000            | 1732.954         | 87   |   | 25-150         | 1.58      | 1.160 |
| PCB 105L          | 2000            | 1822.387         | 91   |   | 25-150         | 1.58      | 1.179 |
| PCB 126L          | 2000            | 1869.351         | 93   |   | 25-150         | 1.52      | 1.268 |
| PCB 167L          | 2000            | 1525.263         | 76   |   | 25-150         | 1.28      | 1.070 |
| PCBs 156L + 157L  | 4000            | 3190.483         | 80   |   | 25-150         | 1.27      | 1.097 |
| PCB 169L          | 2000            | 1536.665         | 77   |   | 25-150         | 1.25      | 1.174 |
| PCB 189L          | 2000            | 1592.054         | 80   |   | 25-150         | 1.06      | 0.962 |
| PCB 111L          | 2000            | 1563.237         | 78   |   | 30-135         | 1.55      | 1.078 |
| PCB 178L          | 2000            | 1425.554         | 71   |   | 30-135         | 1.02      | 1.010 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-14-110509  
**Lab Code:** E1000009-003

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0917  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 77.8   | 6.00 | 1               | 0.0003  | 0.0233                       |
| PCB 77         | 1220   | 6.53 | 1               | 0.0001  | 0.122                        |
| PCB 123        | 1270   | 51.8 | 1               | 0.00003 | 0.0381                       |
| PCB 118        | 74000  | 76.9 | 20              | 0.00003 | 2.22                         |
| PCB 114        | 1780   | 52.2 | 1               | 0.00003 | 0.0534                       |
| PCB 105        | 34500  | 88.4 | 20              | 0.00003 | 1.04                         |
| PCB 126        | 102    | 58.1 | 1               | 0.1     | 10.2                         |
| PCB 167        | 3540   | 37.1 | 1               | 0.00003 | 0.106                        |
| PCBs 156 + 157 | 14800  | 133  | 20              | 0.00003 | 0.444                        |
| PCB 169        | 53.6   | 44.9 | 1               | 0.03    | 1.61                         |
| PCB 189        | 579    | 11.9 | 1               | 0.00003 | 0.0174                       |

Total TEQ

15.9

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-14-110509  
**Lab Code:** E1000009-003  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0917  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 77.8

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.237g  
**Data File Name:** U222002  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 1519  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221996

| Analyte Name   | Result Q       | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|----------------|------|------|-----------|-------|-----------------|
| PCB 81         | ND U           | 35.1 | 2450 |           |       | 20              |
| PCB 77         | ND U           | 38.7 | 2450 |           |       | 20              |
| PCB 123        | ND U           | 90.6 | 2450 |           |       | 20              |
| PCB 118        | <b>74000</b> B | 76.9 | 2450 | 1.59      | 1.000 | 20              |
| PCB 114        | ND U           | 89.0 | 2450 |           |       | 20              |
| PCB 105        | <b>34500</b> B | 88.4 | 982  | 1.57      | 1.001 | 20              |
| PCB 126        | ND U           | 90.5 | 2450 |           |       | 20              |
| PCB 167        | ND U           | 96.5 | 2450 |           |       | 20              |
| PCBs 156 + 157 | <b>14800</b> B | 133  | 2450 | 1.27      | 1.000 | 20              |
| PCB 169        | ND U           | 111  | 2450 |           |       | 20              |
| PCB 189        | ND U           | 75.2 | 2450 |           |       | 20              |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-14-110509  
**Lab Code:** E1000009-003  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0917  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 77.8

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.237g  
**Data File Name:** U222002  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 1519  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221996

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2020            | 3028.504         | 150  |   | 25-150         | 0.79      | 1.328 |
| PCB 77L           | 2040            | 2958.443         | 145  |   | 25-150         | 0.81      | 1.349 |
| PCB 123L          | 2300            | 2985.416         | 130  |   | 25-150         | 1.58      | 1.135 |
| PCB 118L          | 2150            | 3098.001         | 144  |   | 25-150         | 1.63      | 1.145 |
| PCB 114L          | 2300            | 2930.811         | 127  |   | 25-150         | 1.58      | 1.160 |
| PCB 105L          | 2200            | 2985.034         | 136  |   | 25-150         | 1.59      | 1.180 |
| PCB 126L          | 2150            | 3271.701         | 152  | Y | 25-150         | 1.57      | 1.269 |
| PCB 167L          | 2630            | 2465.382         | 94   |   | 25-150         | 1.27      | 1.070 |
| PCBs 156L + 157L  | 5000            | 5256.698         | 105  |   | 25-150         | 1.28      | 1.098 |
| PCB 169L          | 2600            | 2591.562         | 100  |   | 25-150         | 1.29      | 1.174 |
| PCB 189L          | 2500            | 2248.073         | 90   |   | 25-150         | 1.07      | 0.962 |
| PCB 111L          | 2560            | 91.769           | 4    | Y | 30-135         | 1.59      | 1.078 |
| PCB 178L          | 2820            | 73.158           | 3    | Y | 30-135         | 1.02      | 1.011 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-110509  
**Lab Code:** E1000009-004

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0958  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 77.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.196g  
**Data File Name:** U221936  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0429  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Analyte Name   | Result Q   | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|------------|------|------|-----------|-------|-----------------|
| PCB 81         | 436        | 10.7 | 124  | 0.85      | 1.000 | 1               |
| PCB 77         | 12400 BE   | 12.9 | 124  | 0.79      | 1.001 | 1               |
| PCB 123        | 9570       | 33.3 | 124  | 1.58      | 1.001 | 1               |
| PCB 118        | 135000 BEK | 32.4 | 124  | 1.12      | 1.000 | 1               |
| PCB 114        | 8240       | 33.3 | 124  | 1.57      | 1.001 | 1               |
| PCB 105        | 128000 BEK | 34.6 | 49.7 | 1.19      | 1.000 | 1               |
| PCB 126        | 2240       | 38.8 | 124  | 1.58      | 1.001 | 1               |
| PCB 167        | 28300 BE   | 41.1 | 124  | 1.26      | 1.000 | 1               |
| PCBs 156 + 157 | 86300 BE   | 65.6 | 124  | 1.26      | 1.000 | 1               |
| PCB 169        | 181        | 51.1 | 124  | 1.40      | 0.999 | 1               |
| PCB 189        | 2960       | 25.3 | 124  | 1.02      | 1.001 | 1               |

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-15-110509  
**Lab Code:** E1000009-004

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0958  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 77.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.196g  
**Data File Name:** U221936  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0429  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221926

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2166.567         | 108  |   | 25-150         | 0.82      | 1.327 |
| PCB 77L           | 2000            | 1872.897         | 94   |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2000            | 1611.368         | 81   |   | 25-150         | 1.58      | 1.134 |
| PCB 118L          | 2000            | 1973.740         | 99   |   | 25-150         | 1.54      | 1.145 |
| PCB 114L          | 2000            | 1592.860         | 80   |   | 25-150         | 1.59      | 1.160 |
| PCB 105L          | 2000            | 1779.882         | 89   |   | 25-150         | 1.56      | 1.179 |
| PCB 126L          | 2000            | 1633.872         | 82   |   | 25-150         | 1.60      | 1.268 |
| PCB 167L          | 2000            | 1349.617         | 67   |   | 25-150         | 1.26      | 1.070 |
| PCBs 156L + 157L  | 4000            | 2411.219         | 60   |   | 25-150         | 1.25      | 1.097 |
| PCB 169L          | 2000            | 1268.840         | 63   |   | 25-150         | 1.25      | 1.173 |
| PCB 189L          | 2000            | 1580.297         | 79   |   | 25-150         | 1.03      | 0.962 |
| PCB 111L          | 2000            | 1545.705         | 77   |   | 30-135         | 1.56      | 1.077 |
| PCB 178L          | 2000            | 1388.551         | 69   |   | 30-135         | 1.03      | 1.010 |

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-110509  
**Lab Code:** E1000009-004

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0958  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 436    | 10.7 | 1               | 0.0003  | 0.131                        |
| PCB 77         | 13900  | 73.7 | 50              | 0.0001  | 1.39                         |
| PCB 123        | 9570   | 33.3 | 1               | 0.00003 | 0.287                        |
| PCB 118        | 491000 | 346  | 50              | 0.00003 | 14.7                         |
| PCB 114        | 8240   | 33.3 | 1               | 0.00003 | 0.247                        |
| PCB 105        | 259000 | 447  | 50              | 0.00003 | 7.77                         |
| PCB 126        | 2240   | 38.8 | 1               | 0.1     | 224                          |
| PCB 167        | 44000  | 74.9 | 50              | 0.00003 | 1.32                         |
| PCBs 156 + 157 | 147000 | 122  | 50              | 0.00003 | 4.41                         |
| PCB 169        | 181    | 51.1 | 1               | 0.03    | 5.43                         |
| PCB 189        | 2960   | 25.3 | 1               | 0.00003 | 0.0888                       |

Total TEQ

260

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil

**Sample Name:** SE-SS-15-110509  
**Lab Code:** E1000009-004  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0958  
**Date Received:** 11/10/09

**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 77.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.196g

**Data File Name:** U222007  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 2132  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U222003

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | ND U            | 60.7 | 6210 |           |       | 50              |
| PCB 77         | <b>13900</b> B  | 73.7 | 6210 | 0.81      | 1.000 | 50              |
| PCB 123        | ND U            | 475  | 6210 |           |       | 50              |
| PCB 118        | <b>491000</b> B | 346  | 6210 | 1.55      | 1.000 | 50              |
| PCB 114        | ND U            | 490  | 6210 |           |       | 50              |
| PCB 105        | <b>259000</b> B | 447  | 2480 | 1.57      | 1.000 | 50              |
| PCB 126        | ND U            | 501  | 6210 |           |       | 50              |
| PCB 167        | <b>44000</b> B  | 74.9 | 6210 | 1.27      | 1.000 | 50              |
| PCBs 156 + 157 | <b>147000</b> B | 122  | 6210 | 1.27      | 1.000 | 50              |
| PCB 169        | ND U            | 96.6 | 6210 |           |       | 50              |
| PCB 189        | ND U            | 153  | 6210 |           |       | 50              |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-15-110509  
**Lab Code:** E1000009-004  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/5/09 0958  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 77.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.196g

**Data File Name:** U222007  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 2132  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U222003

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2724.239         | 136  |   | 25-150         | 0.77      | 1.328 |
| PCB 77L           | 2130            | 2602.238         | 122  |   | 25-150         | 0.78      | 1.349 |
| PCB 123L          | 2470            | 2442.625         | 99   |   | 25-150         | 1.56      | 1.136 |
| PCB 118L          | 2020            | 2585.694         | 128  |   | 25-150         | 1.59      | 1.145 |
| PCB 114L          | 2500            | 2377.326         | 95   |   | 25-150         | 1.54      | 1.161 |
| PCB 105L          | 2250            | 2448.721         | 109  |   | 25-150         | 1.54      | 1.180 |
| PCB 126L          | 2440            | 2668.282         | 109  |   | 25-150         | 1.52      | 1.269 |
| PCB 167L          | 2990            | 2066.087         | 69   |   | 25-150         | 1.31      | 1.070 |
| PCBs 156L + 157L  | 6670            | 4437.844         | 67   |   | 25-150         | 1.29      | 1.098 |
| PCB 169L          | 3152            | 2153.033         | 68   |   | 25-150         | 1.21      | 1.174 |
| PCB 189L          | 2530            | 2103.575         | 83   |   | 25-150         | 1.00      | 0.962 |
| PCB 111L          | 40              | 38.706           | 97   |   | 30-135         | 1.61      | 1.078 |
| PCB 178L          | 40              | 48.959           | 122  |   | 30-135         | 1.14      | 1.010 |

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-17-110509  
**Lab Code:** E1000009-005

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1210  
**Date Received:** 11/10/09

**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 79.7

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.376g

**Data File Name:** U221940  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1015  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>245</b>      | 8.87 | 117  | 0.79      | 1.000 | 1               |
| PCB 77         | <b>5100 B</b>   | 9.51 | 117  | 0.81      | 1.000 | 1               |
| PCB 123        | <b>1100</b>     | 10.1 | 117  | 1.55      | 1.000 | 1               |
| PCB 118        | <b>43500 BE</b> | 8.93 | 117  | 1.57      | 1.001 | 1               |
| PCB 114        | <b>1400</b>     | 10.1 | 117  | 1.57      | 1.000 | 1               |
| PCB 105        | <b>28700 BE</b> | 9.97 | 46.7 | 1.59      | 1.000 | 1               |
| PCB 126        | <b>403</b>      | 10.1 | 117  | 1.56      | 1.001 | 1               |
| PCB 167        | <b>4620 B</b>   | 13.6 | 117  | 1.27      | 1.000 | 1               |
| PCBs 156 + 157 | <b>16700 BE</b> | 19.0 | 117  | 1.27      | 1.000 | 1               |
| PCB 169        | <b>169</b>      | 15.5 | 117  | 1.25      | 0.999 | 1               |
| PCB 189        | <b>2620</b>     | 32.7 | 117  | 1.03      | 1.001 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-17-110509  
**Lab Code:** E1000009-005

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1210  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 79.7

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.376g  
**Data File Name:** U221940  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1015  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2167.121         | 108  |   | 25-150         | 0.78      | 1.327 |
| PCB 77L           | 2000            | 2137.035         | 107  |   | 25-150         | 0.80      | 1.348 |
| PCB 123L          | 2000            | 1888.173         | 94   |   | 25-150         | 1.60      | 1.135 |
| PCB 118L          | 2000            | 2055.433         | 103  |   | 25-150         | 1.58      | 1.144 |
| PCB 114L          | 2000            | 1838.129         | 92   |   | 25-150         | 1.58      | 1.160 |
| PCB 105L          | 2000            | 1995.922         | 100  |   | 25-150         | 1.59      | 1.179 |
| PCB 126L          | 2000            | 2240.066         | 112  |   | 25-150         | 1.56      | 1.268 |
| PCB 167L          | 2000            | 1623.648         | 81   |   | 25-150         | 1.27      | 1.070 |
| PCBs 156L + 157L  | 4000            | 3583.868         | 90   |   | 25-150         | 1.27      | 1.097 |
| PCB 169L          | 2000            | 1782.547         | 89   |   | 25-150         | 1.25      | 1.173 |
| PCB 189L          | 2000            | 1602.064         | 80   |   | 25-150         | 1.05      | 0.962 |
| PCB 111L          | 2000            | 1582.783         | 79   |   | 30-135         | 1.56      | 1.078 |
| PCB 178L          | 2000            | 1099.716         | 55   |   | 30-135         | 1.05      | 1.010 |

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-17-110509  
**Lab Code:** E1000009-005

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1210  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 245    | 8.87 | 1               | 0.0003  | 0.0735                       |
| PCB 77         | 5100   | 9.51 | 1               | 0.0001  | 0.510                        |
| PCB 123        | 1100   | 10.1 | 1               | 0.00003 | 0.0330                       |
| PCB 118        | 43500  | 8.93 | 1               | 0.00003 | 1.31                         |
| PCB 114        | 1400   | 10.1 | 1               | 0.00003 | 0.0420                       |
| PCB 105        | 28700  | 9.97 | 1               | 0.00003 | 0.861                        |
| PCB 126        | 403    | 10.1 | 1               | 0.1     | 40.3                         |
| PCB 167        | 4620   | 13.6 | 1               | 0.00003 | 0.139                        |
| PCBs 156 + 157 | 16700  | 19.0 | 1               | 0.00003 | 0.501                        |
| PCB 169        | 169    | 15.5 | 1               | 0.03    | 5.07                         |
| PCB 189        | 2620   | 32.7 | 1               | 0.00003 | 0.0786                       |
| Total TEQ      |        |      |                 |         | 48.9                         |

2005 WHO TEFs, ND = 0

Comments:

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-19-110509  
**Lab Code:** E1000009-006

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1440  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 80.2

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.088g  
**Data File Name:** U221941  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1123  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>50.1</b> JK  | 1.80 | 123  | 0.97      | 1.000 | 1               |
| PCB 77         | <b>821</b> B    | 2.24 | 123  | 0.80      | 1.001 | 1               |
| PCB 123        | <b>408</b>      | 46.7 | 123  | 1.60      | 1.000 | 1               |
| PCB 118        | <b>11400</b> BE | 41.2 | 123  | 1.59      | 1.001 | 1               |
| PCB 114        | <b>362</b>      | 45.7 | 123  | 1.60      | 1.000 | 1               |
| PCB 105        | <b>7730</b> B   | 47.8 | 49.0 | 1.59      | 1.000 | 1               |
| PCB 126        | <b>87.0</b> J   | 46.2 | 123  | 1.68      | 1.000 | 1               |
| PCB 167        | <b>1280</b> B   | 13.2 | 123  | 1.27      | 1.001 | 1               |
| PCBs 156 + 157 | <b>3610</b> B   | 18.8 | 123  | 1.27      | 1.000 | 1               |
| PCB 169        | <b>47.3</b> J   | 14.0 | 123  | 1.32      | 0.999 | 1               |
| PCB 189        | <b>682</b>      | 8.00 | 123  | 1.04      | 1.000 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-19-110509  
**Lab Code:** E1000009-006

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1440  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 80.2

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.088g  
**Data File Name:** U221941  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1123  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 1817.490         | 91   |   | 25-150         | 0.80      | 1.325 |
| PCB 77L           | 2000            | 1793.043         | 90   |   | 25-150         | 0.79      | 1.346 |
| PCB 123L          | 2000            | 1649.912         | 82   |   | 25-150         | 1.58      | 1.135 |
| PCB 118L          | 2000            | 1736.903         | 87   |   | 25-150         | 1.59      | 1.144 |
| PCB 114L          | 2000            | 1654.695         | 83   |   | 25-150         | 1.59      | 1.160 |
| PCB 105L          | 2000            | 1676.065         | 84   |   | 25-150         | 1.59      | 1.179 |
| PCB 126L          | 2000            | 1910.828         | 96   |   | 25-150         | 1.60      | 1.268 |
| PCB 167L          | 2000            | 1548.831         | 77   |   | 25-150         | 1.27      | 1.071 |
| PCBs 156L + 157L  | 4000            | 3293.824         | 82   |   | 25-150         | 1.28      | 1.098 |
| PCB 169L          | 2000            | 1758.849         | 88   |   | 25-150         | 1.27      | 1.174 |
| PCB 189L          | 2000            | 1452.534         | 73   |   | 25-150         | 1.04      | 0.962 |
| PCB 111L          | 2000            | 1435.617         | 72   |   | 30-135         | 1.56      | 1.079 |
| PCB 178L          | 2000            | 1138.323         | 57   |   | 30-135         | 1.09      | 1.010 |

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-19-110509  
**Lab Code:** E1000009-006

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1440  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result       | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------------|------|-----------------|---------|------------------------------|
| PCB 81         | <b>50.1</b>  | 1.80 | 1               | 0.0003  | 0.0150                       |
| PCB 77         | <b>821</b>   | 2.24 | 1               | 0.0001  | 0.0821                       |
| PCB 123        | <b>408</b>   | 46.7 | 1               | 0.00003 | 0.0122                       |
| PCB 118        | <b>11400</b> | 41.2 | 1               | 0.00003 | 0.342                        |
| PCB 114        | <b>362</b>   | 45.7 | 1               | 0.00003 | 0.0109                       |
| PCB 105        | <b>7730</b>  | 47.8 | 1               | 0.00003 | 0.232                        |
| PCB 126        | <b>87.0</b>  | 46.2 | 1               | 0.1     | 8.70                         |
| PCB 167        | <b>1280</b>  | 13.2 | 1               | 0.00003 | 0.0384                       |
| PCBs 156 + 157 | <b>3610</b>  | 18.8 | 1               | 0.00003 | 0.108                        |
| PCB 169        | <b>47.3</b>  | 14.0 | 1               | 0.03    | 1.42                         |
| PCB 189        | <b>682</b>   | 8.00 | 1               | 0.00003 | 0.0205                       |

Total TEQ

11.0

2005 WHO TEFs, ND = 0

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-20-110509  
**Lab Code:** E1000009-007

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1510  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 72.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.483g  
**Data File Name:** U221942  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1231  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Analyte Name   | Result Q      | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|---------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>51.9</b> J | 3.44 | 126  | 0.86      | 1.000 | 1               |
| PCB 77         | <b>648</b> B  | 3.73 | 126  | 0.79      | 1.000 | 1               |
| PCB 123        | <b>289</b>    | 32.3 | 126  | 1.54      | 1.000 | 1               |
| PCB 118        | <b>9780</b> B | 29.4 | 126  | 1.59      | 1.001 | 1               |
| PCB 114        | <b>297</b>    | 32.5 | 126  | 1.56      | 1.001 | 1               |
| PCB 105        | <b>6710</b> B | 33.0 | 50.3 | 1.58      | 1.000 | 1               |
| PCB 126        | <b>90.9</b> J | 33.4 | 126  | 1.63      | 1.001 | 1               |
| PCB 167        | <b>1180</b> B | 4.40 | 126  | 1.28      | 1.000 | 1               |
| PCBs 156 + 157 | <b>3640</b> B | 6.26 | 126  | 1.27      | 1.000 | 1               |
| PCB 169        | <b>61.1</b> J | 4.84 | 126  | 1.18      | 0.999 | 1               |
| PCB 189        | <b>625</b>    | 9.16 | 126  | 1.03      | 1.000 | 1               |

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-20-110509  
**Lab Code:** E1000009-007

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1510  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 72.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.483g  
**Data File Name:** U221942  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1231  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 1361.994         | 68   |   | 25-150         | 0.79      | 1.327 |
| PCB 77L           | 2000            | 1348.406         | 67   |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2000            | 1316.711         | 66   |   | 25-150         | 1.56      | 1.135 |
| PCB 118L          | 2000            | 1368.101         | 68   |   | 25-150         | 1.59      | 1.144 |
| PCB 114L          | 2000            | 1279.859         | 64   |   | 25-150         | 1.61      | 1.160 |
| PCB 105L          | 2000            | 1351.389         | 68   |   | 25-150         | 1.56      | 1.179 |
| PCB 126L          | 2000            | 1500.915         | 75   |   | 25-150         | 1.55      | 1.268 |
| PCB 167L          | 2000            | 1074.348         | 54   |   | 25-150         | 1.29      | 1.070 |
| PCBs 156L + 157L  | 4000            | 2285.453         | 57   |   | 25-150         | 1.28      | 1.097 |
| PCB 169L          | 2000            | 1201.105         | 60   |   | 25-150         | 1.28      | 1.173 |
| PCB 189L          | 2000            | 1085.188         | 54   |   | 25-150         | 1.06      | 0.962 |
| PCB 111L          | 2000            | 1092.507         | 55   |   | 30-135         | 1.57      | 1.078 |
| PCB 178L          | 2000            | 745.493          | 37   |   | 30-135         | 1.08      | 1.010 |

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-20-110509  
**Lab Code:** E1000009-007

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1510  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 51.9   | 3.44 | 1               | 0.0003  | 0.0156                       |
| PCB 77         | 648    | 3.73 | 1               | 0.0001  | 0.0648                       |
| PCB 123        | 289    | 32.3 | 1               | 0.00003 | 0.00867                      |
| PCB 118        | 9780   | 29.4 | 1               | 0.00003 | 0.293                        |
| PCB 114        | 297    | 32.5 | 1               | 0.00003 | 0.00891                      |
| PCB 105        | 6710   | 33.0 | 1               | 0.00003 | 0.201                        |
| PCB 126        | 90.9   | 33.4 | 1               | 0.1     | 9.09                         |
| PCB 167        | 1180   | 4.40 | 1               | 0.00003 | 0.0354                       |
| PCBs 156 + 157 | 3640   | 6.26 | 1               | 0.00003 | 0.109                        |
| PCB 169        | 61.1   | 4.84 | 1               | 0.03    | 1.83                         |
| PCB 189        | 625    | 9.16 | 1               | 0.00003 | 0.0188                       |

Total TEQ

11.7

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-21-110509  
**Lab Code:** E1000009-008

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1540  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 78.4

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.201g  
**Data File Name:** U221943  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1534  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>125</b>      | 3.91 | 123  | 0.85      | 1.000 | 1               |
| PCB 77         | <b>1680</b> B   | 4.19 | 123  | 0.80      | 1.000 | 1               |
| PCB 123        | <b>966</b>      | 96.2 | 123  | 1.62      | 1.000 | 1               |
| PCB 118        | <b>25200</b> BE | 86.5 | 123  | 1.52      | 1.000 | 1               |
| PCB 114        | <b>1040</b>     | 97.2 | 123  | 1.58      | 1.000 | 1               |
| PCB 105        | <b>19700</b> BE | 95.7 | 49.0 | 1.53      | 1.000 | 1               |
| PCB 126        | <b>500</b>      | 101  | 123  | 1.38      | 1.001 | 1               |
| PCB 167        | <b>4820</b> B   | 3.93 | 123  | 1.25      | 1.001 | 1               |
| PCBs 156 + 157 | <b>15100</b> BE | 5.86 | 123  | 1.25      | 1.000 | 1               |
| PCB 169        | <b>207</b>      | 4.37 | 123  | 1.23      | 1.000 | 1               |
| PCB 189        | <b>3170</b>     | 36.0 | 123  | 0.98      | 1.000 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-21-110509  
**Lab Code:** E1000009-008

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1540  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 78.4

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.201g  
**Data File Name:** U221943  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 1534  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 954.345          | 48   |   | 25-150         | 0.77      | 1.327 |
| PCB 77L           | 2000            | 935.561          | 47   |   | 25-150         | 0.78      | 1.347 |
| PCB 123L          | 2000            | 824.081          | 41   |   | 25-150         | 1.51      | 1.135 |
| PCB 118L          | 2000            | 878.092          | 44   |   | 25-150         | 1.58      | 1.144 |
| PCB 114L          | 2000            | 825.915          | 41   |   | 25-150         | 1.53      | 1.160 |
| PCB 105L          | 2000            | 858.444          | 43   |   | 25-150         | 1.59      | 1.179 |
| PCB 126L          | 2000            | 934.401          | 47   |   | 25-150         | 1.55      | 1.268 |
| PCB 167L          | 2000            | 689.923          | 34   |   | 25-150         | 1.25      | 1.070 |
| PCBs 156L + 157L  | 4000            | 1329.060         | 33   |   | 25-150         | 1.28      | 1.097 |
| PCB 169L          | 2000            | 755.209          | 38   |   | 25-150         | 1.27      | 1.173 |
| PCB 189L          | 2000            | 742.770          | 37   |   | 25-150         | 1.06      | 0.962 |
| PCB 111L          | 2000            | 748.413          | 37   |   | 30-135         | 1.56      | 1.078 |
| PCB 178L          | 2000            | 626.863          | 31   |   | 30-135         | 1.04      | 1.010 |

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-21-110509  
**Lab Code:** E1000009-008

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1540  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 125    | 3.91 | 1               | 0.0003  | 0.0375                       |
| PCB 77         | 1680   | 4.19 | 1               | 0.0001  | 0.168                        |
| PCB 123        | 966    | 96.2 | 1               | 0.00003 | 0.0290                       |
| PCB 118        | 25200  | 86.5 | 1               | 0.00003 | 0.756                        |
| PCB 114        | 1040   | 97.2 | 1               | 0.00003 | 0.0312                       |
| PCB 105        | 19700  | 95.7 | 1               | 0.00003 | 0.591                        |
| PCB 126        | 500    | 101  | 1               | 0.1     | 50.0                         |
| PCB 167        | 4820   | 3.93 | 1               | 0.00003 | 0.145                        |
| PCBs 156 + 157 | 15100  | 5.86 | 1               | 0.00003 | 0.453                        |
| PCB 169        | 207    | 4.37 | 1               | 0.03    | 6.21                         |
| PCB 189        | 3170   | 36.0 | 1               | 0.00003 | 0.0951                       |
| Total TEQ      |        |      |                 |         | 58.5                         |

2005 WHO TEFs, ND = 0

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-23-110509  
**Lab Code:** E1000009-009  
**Service Request:** E1000009  
**Date Collected:** 11/5/09 1650  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 82.1

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.546g  
**Data File Name:** U221947  
**ICAL Date:** 10/19/09  
**Date Analyzed:** 1/15/10 2048  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Analyte Name   | Result Q      | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|---------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>40.1</b> J | 1.30 | 110  | 0.77      | 1.001 | 1               |
| PCB 77         | <b>515</b> B  | 1.41 | 110  | 0.80      | 1.001 | 1               |
| PCB 123        | <b>261</b>    | 35.2 | 110  | 1.56      | 1.000 | 1               |
| PCB 118        | <b>6440</b> B | 32.1 | 110  | 1.55      | 1.001 | 1               |
| PCB 114        | <b>275</b>    | 35.8 | 110  | 1.52      | 1.001 | 1               |
| PCB 105        | <b>4830</b> B | 35.5 | 43.9 | 1.55      | 1.000 | 1               |
| PCB 126        | <b>139</b>    | 35.4 | 110  | 1.55      | 1.000 | 1               |
| PCB 167        | <b>1160</b> B | 19.0 | 110  | 1.27      | 1.000 | 1               |
| PCBs 156 + 157 | <b>3760</b> B | 27.1 | 110  | 1.30      | 1.000 | 1               |
| PCB 169        | <b>52.5</b> J | 21.4 | 110  | 1.24      | 0.999 | 1               |
| PCB 189        | <b>754</b>    | 5.89 | 110  | 1.01      | 1.001 | 1               |

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

|                       |                                           |                         |              |
|-----------------------|-------------------------------------------|-------------------------|--------------|
| <b>Client:</b>        | Weston Solutions, Incorporated            | <b>Service Request:</b> | E1000009     |
| <b>Project:</b>       | Sauget E. St. Louis/20405.016.008.0828.00 | <b>Date Collected:</b>  | 11/5/09 1650 |
| <b>Sample Matrix:</b> | Soil                                      | <b>Date Received:</b>   | 11/10/09     |
| <b>Sample Name:</b>   | SE-SS-23-110509                           | <b>Units:</b>           | Percent      |
| <b>Lab Code:</b>      | E1000009-009                              | <b>Basis:</b>           | Dry          |
|                       |                                           | <b>Percent Solids:</b>  | 82.1         |

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

|                           |          |                            |              |
|---------------------------|----------|----------------------------|--------------|
| <b>Analytical Method:</b> | 1668A    | <b>Date Analyzed:</b>      | 1/15/10 2048 |
| <b>Prep Method:</b>       | Method   | <b>Date Extracted:</b>     | 1/8/10       |
| <b>Sample Amount:</b>     | 5.546g   | <b>Instrument Name:</b>    | E-HRMS-02    |
| <b>Data File Name:</b>    | U221947  | <b>GC Column:</b>          | SPB-OCTYL    |
| <b>ICAL Date:</b>         | 10/19/09 | <b>Blank File Name:</b>    | U221939      |
|                           |          | <b>Cal Ver. File Name:</b> | U221944      |

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2022.903         | 101  |   | 25-150         | 0.78      | 1.327 |
| PCB 77L           | 2000            | 1993.484         | 100  |   | 25-150         | 0.80      | 1.347 |
| PCB 123L          | 2000            | 1794.903         | 90   |   | 25-150         | 1.58      | 1.135 |
| PCB 118L          | 2000            | 1871.938         | 94   |   | 25-150         | 1.59      | 1.144 |
| PCB 114L          | 2000            | 1770.505         | 89   |   | 25-150         | 1.53      | 1.160 |
| PCB 105L          | 2000            | 1837.633         | 92   |   | 25-150         | 1.58      | 1.179 |
| PCB 126L          | 2000            | 2066.522         | 103  |   | 25-150         | 1.54      | 1.268 |
| PCB 167L          | 2000            | 1470.918         | 74   |   | 25-150         | 1.29      | 1.071 |
| PCBs 156L + 157L  | 4000            | 3138.126         | 78   |   | 25-150         | 1.24      | 1.098 |
| PCB 169L          | 2000            | 1588.978         | 79   |   | 25-150         | 1.28      | 1.173 |
| PCB 189L          | 2000            | 1496.914         | 75   |   | 25-150         | 1.05      | 0.962 |
| PCB 111L          | 2000            | 1468.480         | 73   |   | 30-135         | 1.56      | 1.077 |
| PCB 178L          | 2000            | 1104.785         | 55   |   | 30-135         | 1.08      | 1.010 |

Comments:

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-23-110509  
**Lab Code:** E1000009-009

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1650  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 40.1   | 1.30 | 1               | 0.0003  | 0.0120                       |
| PCB 77         | 515    | 1.41 | 1               | 0.0001  | 0.0515                       |
| PCB 123        | 261    | 35.2 | 1               | 0.00003 | 0.00783                      |
| PCB 118        | 6440   | 32.1 | 1               | 0.00003 | 0.193                        |
| PCB 114        | 275    | 35.8 | 1               | 0.00003 | 0.00825                      |
| PCB 105        | 4830   | 35.5 | 1               | 0.00003 | 0.145                        |
| PCB 126        | 139    | 35.4 | 1               | 0.1     | 13.9                         |
| PCB 167        | 1160   | 19.0 | 1               | 0.00003 | 0.0348                       |
| PCBs 156 + 157 | 3760   | 27.1 | 1               | 0.00003 | 0.113                        |
| PCB 169        | 52.5   | 21.4 | 1               | 0.03    | 1.58                         |
| PCB 189        | 754    | 5.89 | 1               | 0.00003 | 0.0226                       |

Total TEQ

16.1

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-23-110509-D  
**Lab Code:** E1000009-010

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1650  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 76.7

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.869g  
**Data File Name:** U221948  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 2157  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Analyte Name   | Result Q      | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|---------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>40.8</b> J | 1.34 | 111  | 0.83      | 1.000 | 1               |
| PCB 77         | <b>593</b> B  | 1.49 | 111  | 0.80      | 1.000 | 1               |
| PCB 123        | <b>237</b>    | 30.5 | 111  | 1.57      | 1.000 | 1               |
| PCB 118        | <b>6310</b> B | 27.3 | 111  | 1.59      | 1.001 | 1               |
| PCB 114        | <b>262</b>    | 31.3 | 111  | 1.58      | 1.001 | 1               |
| PCB 105        | <b>4640</b> B | 30.1 | 44.4 | 1.56      | 1.000 | 1               |
| PCB 126        | <b>126</b>    | 30.8 | 111  | 1.38      | 1.000 | 1               |
| PCB 167        | <b>1070</b> B | 16.7 | 111  | 1.28      | 1.000 | 1               |
| PCBs 156 + 157 | <b>3400</b> B | 23.3 | 111  | 1.27      | 1.000 | 1               |
| PCB 169        | <b>39.8</b> J | 19.0 | 111  | 1.27      | 1.000 | 1               |
| PCB 189        | <b>637</b>    | 5.95 | 111  | 1.02      | 1.001 | 1               |

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

|                       |                                           |                         |              |
|-----------------------|-------------------------------------------|-------------------------|--------------|
| <b>Client:</b>        | Weston Solutions, Incorporated            | <b>Service Request:</b> | E1000009     |
| <b>Project:</b>       | Sauget E. St. Louis/20405.016.008.0828.00 | <b>Date Collected:</b>  | 11/5/09 1650 |
| <b>Sample Matrix:</b> | Soil                                      | <b>Date Received:</b>   | 11/10/09     |
| <b>Sample Name:</b>   | SE-SS-23-110509-D                         | <b>Units:</b>           | Percent      |
| <b>Lab Code:</b>      | E1000009-010                              | <b>Basis:</b>           | Dry          |
|                       |                                           | <b>Percent Solids:</b>  | 76.7         |

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

|                           |          |                            |              |
|---------------------------|----------|----------------------------|--------------|
| <b>Analytical Method:</b> | 1668A    | <b>Date Analyzed:</b>      | 1/15/10 2157 |
| <b>Prep Method:</b>       | Method   | <b>Date Extracted:</b>     | 1/8/10       |
| <b>Sample Amount:</b>     | 5.869g   | <b>Instrument Name:</b>    | E-HRMS-02    |
| <b>Data File Name:</b>    | U221948  | <b>GC Column:</b>          | SPB-OCTYL    |
| <b>ICAL Date:</b>         | 10/19/09 | <b>Blank File Name:</b>    | U221939      |
|                           |          | <b>Cal Ver. File Name:</b> | U221944      |

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2132.010         | 107  |   | 25-150         | 0.80      | 1.327 |
| PCB 77L           | 2000            | 2066.570         | 103  |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2000            | 1839.895         | 92   |   | 25-150         | 1.52      | 1.135 |
| PCB 118L          | 2000            | 1916.401         | 96   |   | 25-150         | 1.59      | 1.144 |
| PCB 114L          | 2000            | 1825.806         | 91   |   | 25-150         | 1.55      | 1.160 |
| PCB 105L          | 2000            | 1893.128         | 95   |   | 25-150         | 1.58      | 1.180 |
| PCB 126L          | 2000            | 2109.326         | 105  |   | 25-150         | 1.54      | 1.268 |
| PCB 167L          | 2000            | 1554.907         | 78   |   | 25-150         | 1.25      | 1.070 |
| PCBs 156L + 157L  | 4000            | 3342.494         | 84   |   | 25-150         | 1.22      | 1.097 |
| PCB 169L          | 2000            | 1722.252         | 86   |   | 25-150         | 1.24      | 1.173 |
| PCB 189L          | 2000            | 1567.517         | 78   |   | 25-150         | 1.05      | 0.962 |
| PCB 111L          | 2000            | 1526.472         | 76   |   | 30-135         | 1.58      | 1.078 |
| PCB 178L          | 2000            | 1185.604         | 59   |   | 30-135         | 1.04      | 1.010 |

Comments:

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-23-110509-D  
**Lab Code:** E1000009-010

**Service Request:** E1000009  
**Date Collected:** 11/5/09 1650  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result      | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|-------------|------|-----------------|---------|------------------------------|
| PCB 81         | <b>40.8</b> | 1.34 | 1               | 0.0003  | 0.0122                       |
| PCB 77         | <b>593</b>  | 1.49 | 1               | 0.0001  | 0.0593                       |
| PCB 123        | <b>237</b>  | 30.5 | 1               | 0.00003 | 0.00711                      |
| PCB 118        | <b>6310</b> | 27.3 | 1               | 0.00003 | 0.189                        |
| PCB 114        | <b>262</b>  | 31.3 | 1               | 0.00003 | 0.00786                      |
| PCB 105        | <b>4640</b> | 30.1 | 1               | 0.00003 | 0.139                        |
| PCB 126        | <b>126</b>  | 30.8 | 1               | 0.1     | 12.6                         |
| PCB 167        | <b>1070</b> | 16.7 | 1               | 0.00003 | 0.0321                       |
| PCBs 156 + 157 | <b>3400</b> | 23.3 | 1               | 0.00003 | 0.102                        |
| PCB 169        | <b>39.8</b> | 19.0 | 1               | 0.03    | 1.19                         |
| PCB 189        | <b>637</b>  | 5.95 | 1               | 0.00003 | 0.0191                       |
| Total TEQ      |             |      |                 |         | 14.4                         |

2005 WHO TEFs, ND = 0

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-25-110609  
**Lab Code:** E1000009-011  
**Service Request:** E1000009  
**Date Collected:** 11/6/09 0909  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 75.2

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.041g  
**Data File Name:** U221949  
**ICAL Date:** 10/19/09  
**Date Analyzed:** 1/15/10 2305  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Analyte Name   | Result Q | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|----------|------|------|-----------|-------|-----------------|
| PCB 81         | 43.8 J   | 1.07 | 132  | 0.75      | 1.000 | 1               |
| PCB 77         | 591 B    | 1.20 | 132  | 0.80      | 1.000 | 1               |
| PCB 123        | 336      | 36.6 | 132  | 1.63      | 1.000 | 1               |
| PCB 118        | 7540 B   | 32.9 | 132  | 1.58      | 1.001 | 1               |
| PCB 114        | 280      | 36.4 | 132  | 1.59      | 1.001 | 1               |
| PCB 105        | 6580 B   | 36.6 | 52.8 | 1.56      | 1.000 | 1               |
| PCB 126        | 149      | 37.2 | 132  | 1.55      | 1.000 | 1               |
| PCB 167        | 1390 B   | 9.00 | 132  | 1.28      | 1.000 | 1               |
| PCBs 156 + 157 | 4380 B   | 13.0 | 132  | 1.28      | 1.000 | 1               |
| PCB 169        | 61.7 J   | 9.65 | 132  | 1.14      | 0.999 | 1               |
| PCB 189        | 796      | 8.41 | 132  | 0.97      | 1.001 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-25-110609  
**Lab Code:** E1000009-011

**Service Request:** E1000009  
**Date Collected:** 11/6/09 0909  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 75.2

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.041g  
**Data File Name:** U221949  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 2305  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2090.139         | 105  |   | 25-150         | 0.78      | 1.326 |
| PCB 77L           | 2000            | 2064.286         | 103  |   | 25-150         | 0.78      | 1.347 |
| PCB 123L          | 2000            | 1800.590         | 90   |   | 25-150         | 1.59      | 1.135 |
| PCB 118L          | 2000            | 1851.536         | 93   |   | 25-150         | 1.56      | 1.144 |
| PCB 114L          | 2000            | 1782.866         | 89   |   | 25-150         | 1.57      | 1.160 |
| PCB 105L          | 2000            | 1838.075         | 92   |   | 25-150         | 1.55      | 1.180 |
| PCB 126L          | 2000            | 2060.269         | 103  |   | 25-150         | 1.56      | 1.268 |
| PCB 167L          | 2000            | 1508.739         | 75   |   | 25-150         | 1.26      | 1.071 |
| PCBs 156L + 157L  | 4000            | 3151.370         | 79   |   | 25-150         | 1.23      | 1.098 |
| PCB 169L          | 2000            | 1678.029         | 84   |   | 25-150         | 1.29      | 1.173 |
| PCB 189L          | 2000            | 1512.220         | 76   |   | 25-150         | 1.01      | 0.962 |
| PCB 111L          | 2000            | 1512.642         | 76   |   | 30-135         | 1.58      | 1.078 |
| PCB 178L          | 2000            | 1168.707         | 58   |   | 30-135         | 1.03      | 1.010 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-25-110609  
**Lab Code:** E1000009-011

**Service Request:** E1000009  
**Date Collected:** 11/6/09 0909  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 43.8   | 1.07 | 1               | 0.0003  | 0.0131                       |
| PCB 77         | 591    | 1.20 | 1               | 0.0001  | 0.0591                       |
| PCB 123        | 336    | 36.6 | 1               | 0.00003 | 0.0101                       |
| PCB 118        | 7540   | 32.9 | 1               | 0.00003 | 0.226                        |
| PCB 114        | 280    | 36.4 | 1               | 0.00003 | 0.00840                      |
| PCB 105        | 6580   | 36.6 | 1               | 0.00003 | 0.197                        |
| PCB 126        | 149    | 37.2 | 1               | 0.1     | 14.9                         |
| PCB 167        | 1390   | 9.00 | 1               | 0.00003 | 0.0417                       |
| PCBs 156 + 157 | 4380   | 13.0 | 1               | 0.00003 | 0.131                        |
| PCB 169        | 61.7   | 9.65 | 1               | 0.03    | 1.85                         |
| PCB 189        | 796    | 8.41 | 1               | 0.00003 | 0.0239                       |

Total TEQ

17.5

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-31-110609  
**Lab Code:** E1000009-012

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1308  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 78.5

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.115g  
**Data File Name:** U221950  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/16/10 0013  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>198</b>      | 10.3 | 125  | 0.80      | 1.000 | 1               |
| PCB 77         | <b>3490 B</b>   | 11.5 | 125  | 0.80      | 1.000 | 1               |
| PCB 123        | <b>1890</b>     | 35.3 | 125  | 1.62      | 1.000 | 1               |
| PCB 118        | <b>73500 BE</b> | 32.5 | 125  | 1.56      | 1.000 | 1               |
| PCB 114        | <b>2040</b>     | 35.0 | 125  | 1.57      | 1.001 | 1               |
| PCB 105        | <b>46100 BE</b> | 35.4 | 49.8 | 1.56      | 1.000 | 1               |
| PCB 126        | <b>645</b>      | 36.0 | 125  | 1.56      | 1.000 | 1               |
| PCB 167        | <b>10500 BE</b> | 22.6 | 125  | 1.25      | 1.000 | 1               |
| PCBs 156 + 157 | <b>32500 BE</b> | 30.4 | 125  | 1.28      | 1.000 | 1               |
| PCB 169        | <b>369</b>      | 25.8 | 125  | 1.12      | 0.999 | 1               |
| PCB 189        | <b>6320</b>     | 59.7 | 125  | 1.00      | 1.000 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-31-110609  
**Lab Code:** E1000009-012

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1308  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 78.5

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.115g  
**Data File Name:** U221950  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/16/10 0013  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2097.095         | 105  |   | 25-150         | 0.79      | 1.327 |
| PCB 77L           | 2000            | 1973.026         | 99   |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2000            | 1807.563         | 90   |   | 25-150         | 1.56      | 1.135 |
| PCB 118L          | 2000            | 1958.264         | 98   |   | 25-150         | 1.52      | 1.145 |
| PCB 114L          | 2000            | 1784.376         | 89   |   | 25-150         | 1.56      | 1.160 |
| PCB 105L          | 2000            | 1906.443         | 95   |   | 25-150         | 1.56      | 1.180 |
| PCB 126L          | 2000            | 2043.641         | 102  |   | 25-150         | 1.58      | 1.268 |
| PCB 167L          | 2000            | 1440.811         | 72   |   | 25-150         | 1.23      | 1.070 |
| PCBs 156L + 157L  | 4000            | 3060.747         | 77   |   | 25-150         | 1.26      | 1.097 |
| PCB 169L          | 2000            | 1536.911         | 77   |   | 25-150         | 1.28      | 1.173 |
| PCB 189L          | 2000            | 1475.647         | 74   |   | 25-150         | 1.03      | 0.962 |
| PCB 111L          | 2000            | 1541.735         | 77   |   | 30-135         | 1.58      | 1.078 |
| PCB 178L          | 2000            | 1198.080         | 60   |   | 30-135         | 1.05      | 1.010 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-31-110609  
**Lab Code:** E1000009-012

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1308  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 198    | 10.3 | 1               | 0.0003  | 0.0594                       |
| PCB 77         | 3490   | 11.5 | 1               | 0.0001  | 0.349                        |
| PCB 123        | 1890   | 35.3 | 1               | 0.00003 | 0.0567                       |
| PCB 118        | 62300  | 160  | 20              | 0.00003 | 1.87                         |
| PCB 114        | 2040   | 35.0 | 1               | 0.00003 | 0.0612                       |
| PCB 105        | 40200  | 188  | 20              | 0.00003 | 1.21                         |
| PCB 126        | 645    | 36.0 | 1               | 0.1     | 64.5                         |
| PCB 167        | 11200  | 60.7 | 20              | 0.00003 | 0.336                        |
| PCBs 156 + 157 | 33700  | 80.1 | 20              | 0.00003 | 1.01                         |
| PCB 169        | 369    | 25.8 | 1               | 0.03    | 11.1                         |
| PCB 189        | 6320   | 59.7 | 1               | 0.00003 | 0.190                        |
| Total TEQ      |        |      |                 |         | 80.7                         |

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-31-110609  
**Lab Code:** E1000009-012  
**Run Type:** Dilution  
**Service Request:** E1000009  
**Date Collected:** 11/6/09 1308  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 78.5

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.115g  
**Data File Name:** U222008  
**ICAL Date:** 10/19/09  
**Date Analyzed:** 1/25/10 2240  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U222003

| Analyte Name   | Result Q       | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|----------------|------|------|-----------|-------|-----------------|
| PCB 81         | ND U           | 34.7 | 2490 |           |       | 20              |
| PCB 77         | ND U           | 39.2 | 2490 |           |       | 20              |
| PCB 123        | ND U           | 194  | 2490 |           |       | 20              |
| PCB 118        | <b>62300</b> B | 160  | 2490 | 1.62      | 1.000 | 20              |
| PCB 114        | ND U           | 199  | 2490 |           |       | 20              |
| PCB 105        | <b>40200</b> B | 188  | 996  | 1.61      | 1.000 | 20              |
| PCB 126        | ND U           | 187  | 2490 |           |       | 20              |
| PCB 167        | <b>11200</b> B | 60.7 | 2490 | 1.28      | 1.000 | 20              |
| PCBs 156 + 157 | <b>33700</b> B | 80.1 | 2490 | 1.27      | 1.000 | 20              |
| PCB 169        | ND U           | 68.6 | 2490 |           |       | 20              |
| PCB 189        | ND U           | 90.6 | 2490 |           |       | 20              |

**Comments:** \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-31-110609  
**Lab Code:** E1000009-012  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1308  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 78.5

## Chlorinated Biphenyl Congeners by HRGC/HRMS

|                           |          |                            |              |
|---------------------------|----------|----------------------------|--------------|
| <b>Analytical Method:</b> | 1668A    | <b>Date Analyzed:</b>      | 1/25/10 2240 |
| <b>Prep Method:</b>       | Method   | <b>Date Extracted:</b>     | 1/8/10       |
| <b>Sample Amount:</b>     | 5.115g   | <b>Instrument Name:</b>    | E-HRMS-02    |
| <b>Data File Name:</b>    | U222008  | <b>GC Column:</b>          | SPB-OCTYL    |
| <b>ICAL Date:</b>         | 10/19/09 | <b>Blank File Name:</b>    | U221939      |
|                           |          | <b>Cal Ver. File Name:</b> | U222003      |

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 2595.823         | 130  |   | 25-150         | 0.78      | 1.328 |
| PCB 77L           | 2020            | 2491.416         | 123  |   | 25-150         | 0.79      | 1.349 |
| PCB 123L          | 2220            | 2471.956         | 111  |   | 25-150         | 1.57      | 1.136 |
| PCB 118L          | 2040            | 2597.323         | 127  |   | 25-150         | 1.54      | 1.145 |
| PCB 114L          | 2250            | 2416.604         | 108  |   | 25-150         | 1.60      | 1.161 |
| PCB 105L          | 2110            | 2487.297         | 118  |   | 25-150         | 1.52      | 1.180 |
| PCB 126L          | 2000            | 2665.822         | 133  |   | 25-150         | 1.60      | 1.269 |
| PCB 167L          | 2780            | 2044.760         | 74   |   | 25-150         | 1.27      | 1.070 |
| PCBs 156L + 157L  | 5190            | 4412.042         | 85   |   | 25-150         | 1.31      | 1.098 |
| PCB 169L          | 2600            | 2121.583         | 82   |   | 25-150         | 1.25      | 1.174 |
| PCB 189L          | 2700            | 2075.491         | 77   |   | 25-150         | 1.03      | 0.962 |
| PCB 111L          | 100             | 79.793           | 80   |   | 30-135         | 1.49      | 1.078 |
| PCB 178L          | 100             | 80.377           | 80   |   | 30-135         | 0.97      | 1.010 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-32-110609  
**Lab Code:** E1000009-013

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1335  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 72.4

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.421g  
**Data File Name:** U221951  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/16/10 0122  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Analyte Name   | Result Q        | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|-----------------|------|------|-----------|-------|-----------------|
| PCB 81         | <b>358</b>      | 8.91 | 127  | 0.82      | 1.000 | 1               |
| PCB 77         | <b>5660 B</b>   | 9.93 | 127  | 0.79      | 1.001 | 1               |
| PCB 123        | <b>1540</b>     | 9.43 | 127  | 1.61      | 1.000 | 1               |
| PCB 118        | <b>58900 BE</b> | 8.46 | 127  | 1.57      | 1.001 | 1               |
| PCB 114        | <b>1770</b>     | 9.22 | 127  | 1.57      | 1.000 | 1               |
| PCB 105        | <b>40300 BE</b> | 9.44 | 51.0 | 1.58      | 1.000 | 1               |
| PCB 126        | <b>570</b>      | 9.89 | 127  | 1.38      | 1.001 | 1               |
| PCB 167        | <b>7360 B</b>   | 18.5 | 127  | 1.28      | 1.000 | 1               |
| PCBs 156 + 157 | <b>22700 BE</b> | 26.6 | 127  | 1.27      | 1.000 | 1               |
| PCB 169        | <b>213</b>      | 20.7 | 127  | 1.07      | 0.999 | 1               |
| PCB 189        | <b>4700</b>     | 45.1 | 127  | 0.99      | 1.000 | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-32-110609  
**Lab Code:** E1000009-013

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1335  
**Date Received:** 11/10/09  
**Units:** Percent  
**Basis:** Dry  
**Percent Solids:** 72.4

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.421g  
**Data File Name:** U221951  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/16/10 0122  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221944

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 1626.085         | 81   |   | 25-150         | 0.78      | 1.328 |
| PCB 77L           | 2000            | 1546.717         | 77   |   | 25-150         | 0.78      | 1.348 |
| PCB 123L          | 2000            | 1391.824         | 70   |   | 25-150         | 1.58      | 1.135 |
| PCB 118L          | 2000            | 1495.560         | 75   |   | 25-150         | 1.56      | 1.144 |
| PCB 114L          | 2000            | 1394.500         | 70   |   | 25-150         | 1.58      | 1.160 |
| PCB 105L          | 2000            | 1468.014         | 73   |   | 25-150         | 1.60      | 1.179 |
| PCB 126L          | 2000            | 1573.277         | 79   |   | 25-150         | 1.57      | 1.268 |
| PCB 167L          | 2000            | 1142.501         | 57   |   | 25-150         | 1.25      | 1.070 |
| PCBs 156L + 157L  | 4000            | 2425.428         | 61   |   | 25-150         | 1.26      | 1.098 |
| PCB 169L          | 2000            | 1241.269         | 62   |   | 25-150         | 1.24      | 1.173 |
| PCB 189L          | 2000            | 1168.141         | 58   |   | 25-150         | 1.03      | 0.962 |
| PCB 111L          | 2000            | 1133.054         | 57   |   | 30-135         | 1.57      | 1.078 |
| PCB 178L          | 2000            | 891.653          | 45   |   | 30-135         | 1.03      | 1.010 |

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauget E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-32-110609  
**Lab Code:** E1000009-013

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1335  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method

| Analyte Name   | Result | DL   | Dilution Factor | TEF     | TEF - Adjusted Concentration |
|----------------|--------|------|-----------------|---------|------------------------------|
| PCB 81         | 358    | 8.91 | 1               | 0.0003  | 0.107                        |
| PCB 77         | 5660   | 9.93 | 1               | 0.0001  | 0.566                        |
| PCB 123        | 1540   | 9.43 | 1               | 0.00003 | 0.0462                       |
| PCB 118        | 45800  | 93.3 | 10              | 0.00003 | 1.37                         |
| PCB 114        | 1770   | 9.22 | 1               | 0.00003 | 0.0531                       |
| PCB 105        | 31100  | 108  | 10              | 0.00003 | 0.933                        |
| PCB 126        | 570    | 9.89 | 1               | 0.1     | 57.0                         |
| PCB 167        | 7360   | 18.5 | 1               | 0.00003 | 0.221                        |
| PCBs 156 + 157 | 20700  | 58.5 | 10              | 0.00003 | 0.621                        |
| PCB 169        | 213    | 20.7 | 1               | 0.03    | 6.39                         |
| PCB 189        | 4700   | 45.1 | 1               | 0.00003 | 0.141                        |
| Total TEQ      |        |      |                 |         | 67.4                         |

2005 WHO TEFs, ND = 0

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Sauge St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** SE-SS-32-110609  
**Lab Code:** E1000009-013  
**Run Type:** Dilution

**Service Request:** E1000009  
**Date Collected:** 11/6/09 1335  
**Date Received:** 11/10/09  
**Units:** ng/Kg  
**Basis:** Dry  
**Percent Solids:** 72.4

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.421g  
**Data File Name:** U222009  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/25/10 2348  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U222003

| Analyte Name   | Result Q       | EDL  | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|----------------|------|------|-----------|-------|-----------------|
| PCB 81         | ND U           | 18.7 | 1270 |           |       | 10              |
| PCB 77         | ND U           | 21.9 | 1270 |           |       | 10              |
| PCB 123        | ND U           | 111  | 1270 |           |       | 10              |
| PCB 118        | <b>45800</b> B | 93.3 | 1270 | 1.58      | 1.000 | 10              |
| PCB 114        | ND U           | 108  | 1270 |           |       | 10              |
| PCB 105        | <b>31100</b> B | 108  | 510  | 1.56      | 1.000 | 10              |
| PCB 126        | ND U           | 106  | 1270 |           |       | 10              |
| PCB 167        | ND U           | 45.4 | 1270 |           |       | 10              |
| PCBs 156 + 157 | <b>20700</b> B | 58.5 | 1270 | 1.25      | 1.000 | 10              |
| PCB 169        | ND U           | 49.6 | 1270 |           |       | 10              |
| PCB 189        | ND U           | 85.1 | 1270 |           |       | 10              |

**Comments:**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

|                       |                                           |                         |              |
|-----------------------|-------------------------------------------|-------------------------|--------------|
| <b>Client:</b>        | Weston Solutions, Incorporated            | <b>Service Request:</b> | E1000009     |
| <b>Project:</b>       | Sauget E. St. Louis/20405.016.008.0828.00 | <b>Date Collected:</b>  | 11/6/09 1335 |
| <b>Sample Matrix:</b> | Soil                                      | <b>Date Received:</b>   | 11/10/09     |
| <b>Sample Name:</b>   | SE-SS-32-110609                           | <b>Units:</b>           | Percent      |
| <b>Lab Code:</b>      | E1000009-013                              | <b>Basis:</b>           | Dry          |
| <b>Run Type:</b>      | Dilution                                  | <b>Percent Solids:</b>  | 72.4         |

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

|                           |          |                            |              |
|---------------------------|----------|----------------------------|--------------|
| <b>Analytical Method:</b> | 1668A    | <b>Date Analyzed:</b>      | 1/25/10 2348 |
| <b>Prep Method:</b>       | Method   | <b>Date Extracted:</b>     | 1/8/10       |
| <b>Sample Amount:</b>     | 5.421g   | <b>Instrument Name:</b>    | E-HRMS-02    |
| <b>Data File Name:</b>    | U222009  | <b>GC Column:</b>          | SPB-OCTYL    |
| <b>ICAL Date:</b>         | 10/19/09 | <b>Blank File Name:</b>    | U221939      |
|                           |          | <b>Cal Ver. File Name:</b> | U222003      |

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2470            | 2307.320         | 93   |   | 25-150         | 0.77      | 1.328 |
| PCB 77L           | 2600            | 2211.313         | 85   |   | 25-150         | 0.79      | 1.348 |
| PCB 123L          | 2860            | 2292.052         | 80   |   | 25-150         | 1.56      | 1.135 |
| PCB 118L          | 2670            | 2407.536         | 90   |   | 25-150         | 1.60      | 1.145 |
| PCB 114L          | 2860            | 2261.323         | 79   |   | 25-150         | 1.61      | 1.160 |
| PCB 105L          | 2740            | 2293.403         | 84   |   | 25-150         | 1.56      | 1.180 |
| PCB 126L          | 2530            | 2454.984         | 97   |   | 25-150         | 1.58      | 1.269 |
| PCB 167L          | 3510            | 1925.718         | 55   |   | 25-150         | 1.24      | 1.071 |
| PCBs 156L + 157L  | 6560            | 4030.244         | 61   |   | 25-150         | 1.25      | 1.098 |
| PCB 169L          | 3230            | 1929.254         | 60   |   | 25-150         | 1.22      | 1.174 |
| PCB 189L          | 3450            | 2010.154         | 58   |   | 25-150         | 1.01      | 0.962 |
| PCB 111L          | 200             | 101.417          | 51   |   | 30-135         | 1.56      | 1.078 |
| PCB 178L          | 200             | 98.997           | 49   |   | 30-135         | 1.01      | 1.011 |

Comments:

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## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** Method Blank  
**Lab Code:** EQ1000008-01

**Service Request:** E1000009  
**Date Collected:** NA  
**Date Received:** NA

**Units:** ng/Kg  
**Basis:** Dry

**Chlorinated Biphenyl Congeners by HRGC/HRMS**

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.000g

**Data File Name:** U221939  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0910  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Analyte Name   | Result Q      | EDL   | MRL  | Ion Ratio | RRT   | Dilution Factor |
|----------------|---------------|-------|------|-----------|-------|-----------------|
| PCB 81         | ND U          | 0.333 | 100  |           |       | 1               |
| PCB 77         | <b>2.18 J</b> | 0.350 | 100  | 0.75      | 1.000 | 1               |
| PCB 123        | ND U          | 0.598 | 100  |           |       | 1               |
| PCB 118        | <b>38.1 J</b> | 0.550 | 100  | 1.60      | 1.001 | 1               |
| PCB 114        | ND U          | 0.575 | 100  |           |       | 1               |
| PCB 105        | <b>12.7 J</b> | 0.613 | 40.0 | 1.76      | 1.000 | 1               |
| PCB 126        | ND U          | 0.599 | 100  |           |       | 1               |
| PCB 167        | <b>2.76 J</b> | 0.430 | 100  | 1.23      | 1.001 | 1               |
| PCBs 156 + 157 | <b>6.73 J</b> | 0.630 | 100  | 1.22      | 1.000 | 1               |
| PCB 169        | ND U          | 0.484 | 100  |           |       | 1               |
| PCB 189        | ND U          | 0.328 | 100  |           |       | 1               |

**Comments:**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Weston Solutions, Incorporated  
**Project:** Saugeet E. St. Louis/20405.016.008.0828.00  
**Sample Matrix:** Soil  
**Sample Name:** Method Blank  
**Lab Code:** EQ1000008-01

**Service Request:** E1000009  
**Date Collected:** NA  
**Date Received:** NA

**Units:** Percent  
**Basis:** Dry

## Chlorinated Biphenyl Congeners by HRGC/HRMS

**Analytical Method:** 1668A  
**Prep Method:** Method  
**Sample Amount:** 5.000g

**Data File Name:** U221939  
**ICAL Date:** 10/19/09

**Date Analyzed:** 1/15/10 0910  
**Date Extracted:** 1/8/10  
**Instrument Name:** E-HRMS-02  
**GC Column:** SPB-OCTYL  
**Blank File Name:** U221939  
**Cal Ver. File Name:** U221938

| Labeled Compounds | Spike Conc.(pg) | Conc. Found (pg) | %Rec | Q | Control Limits | Ion Ratio | RRT   |
|-------------------|-----------------|------------------|------|---|----------------|-----------|-------|
| PCB 81L           | 2000            | 1700.467         | 85   |   | 25-150         | 0.79      | 1.325 |
| PCB 77L           | 2000            | 1706.127         | 85   |   | 25-150         | 0.79      | 1.345 |
| PCB 123L          | 2000            | 1555.891         | 78   |   | 25-150         | 1.56      | 1.135 |
| PCB 118L          | 2000            | 1601.163         | 80   |   | 25-150         | 1.59      | 1.144 |
| PCB 114L          | 2000            | 1543.307         | 77   |   | 25-150         | 1.55      | 1.159 |
| PCB 105L          | 2000            | 1580.678         | 79   |   | 25-150         | 1.61      | 1.179 |
| PCB 126L          | 2000            | 1792.995         | 90   |   | 25-150         | 1.56      | 1.268 |
| PCB 167L          | 2000            | 1351.060         | 68   |   | 25-150         | 1.26      | 1.071 |
| PCBs 156L + 157L  | 4000            | 2863.540         | 72   |   | 25-150         | 1.28      | 1.098 |
| PCB 169L          | 2000            | 1441.639         | 72   |   | 25-150         | 1.27      | 1.174 |
| PCB 189L          | 2000            | 1420.091         | 71   |   | 25-150         | 1.05      | 0.962 |
| PCB 111L          | 2000            | 1379.347         | 69   |   | 30-135         | 1.59      | 1.078 |
| PCB 178L          | 2000            | 1103.890         | 55   |   | 30-135         | 1.03      | 1.010 |

Comments: